AMENDMENTS TO THE CLAIMS

Please amend Claims 100, 118, 137 and 157 as follows.

LISTING OF CLAIMS

1.-99. (cancelled)

100. (currently amended) A scroll machine comprising:

a first scroll member having a first spiral wrap projecting outwardly from a first end plate;

a second scroll member having a second spiral wrap projecting outwardly from a second end plate, said second spiral wrap being interleaved with said first spiral wrap;

a drive member for causing said spiral wraps to orbit with respect to one another whereby said spiral wraps create pockets of progressively changing volume between a suction pressure zone at a suction pressure and a discharge pressure zone at a discharge pressure;

~~a plate member having first and second contact portions disposed adjacent said first scroll member, said entire first scroll member being covered by said plate member;~~

a discharge passage placing one of said pockets in fluid communication with said discharge pressure zone~~, said discharge passage extending through said plate member and said first end plate~~;

a plate member having first and second contact portions disposed adjacent said first scroll member, said entire first scroll member other than said

discharge passage being covered by said plate member, said discharge passage extending through said plate member and said first end plate;

a first annular seal disposed between said first contact portion of said plate member and said first end plate and surrounding said discharge passage;

a second annular seal disposed between said second contact portion of said plate member and said first end plate and surrounding said first annular seal, thereby defining a chamber between said annular seals; and

a passage for placing compressed fluid at a pressure intermediate said suction pressure and said discharge pressure in fluid communication with said chamber to pressure bias said first scroll member toward said second scroll member.

101. (previously presented) A scroll machine according to Claim 100 wherein said first and second contact portions lie in spaced parallel planes.

102. (previously presented) A scroll machine according to Claim 100 wherein said first and second contact portions lie in the same plane.

103. (previously presented) A scroll machine according to Claim 100 wherein one of said first and second annular seals is disposed within a seal groove.

104. (previously presented) A scroll machine according to Claim 103 wherein said seal groove is disposed within said first scroll member.

105. (previously presented) A scroll machine according to Claim 103 wherein said seal groove is disposed within said plate member.

106. (previously presented) A scroll machine according to Claim 103 wherein said seal groove is generally rectangular in shape.

107. (previously presented) A scroll machine according to Claim 103 wherein said seal groove includes a wall which defines a tapered portion.

108. (previously presented) A scroll machine according to Claim 103 wherein said seal groove includes a wall which defines a double tapered portion.

109. (previously presented) A scroll machine according to Claim 103 wherein said seal groove includes a wall which defines a reverse taper.

110. (previously presented) A scroll machine according to Claim 103 wherein said seal groove includes a wall which defines a reverse double taper.

111. (previously presented) A scroll machine according to Claim 103 wherein said seal groove includes a wall which defines a reverse lip.

112. (previously presented) A scroll machine according to Claim 103 wherein said seal groove includes a wall which defines a first tapered portion, a flat portion and a second tapered portion.

113. (previously presented) A scroll machine according to Claim 103 wherein said seal groove includes a wall which defines a curved portion.

114. (previously presented) A scroll machine according to Claim 100 wherein one of said first and second annular seals is a one-way seal.

115. (previously presented) A scroll machine according to Claim 100 wherein one of said first and second annular seals is an L-shaped seal.

116. (previously presented) A scroll machine according to Claim 100 wherein one of said first and second annular seals defines a notch.

117. (previously presented) A scroll machine according to Claim 100 wherein one of said first and second annular seals is manufactured from Teflon®.

118. (currently amended) A scroll machine comprising:

a first scroll member having a first spiral wrap projecting outwardly from a first end plate;

a second scroll member having a second spiral wrap projecting outwardly from a second end plate, said second spiral wrap being interleaved with said first spiral wrap;

a drive member for causing said spiral wraps to orbit with respect to one another whereby said spiral wraps create pockets of progressively changing volume between a suction pressure zone at a suction pressure and a discharge pressure zone at a discharge pressure;

~~a plate member having first and second contact portions disposed adjacent said first scroll member, said entire first scroll member being covered by said plate member;~~

a discharge passage placing one of said pockets in fluid communication with said discharge pressure zone~~, said discharge passage extending through said plate member and said first end plate~~;

a plate member having first and second contact portions disposed adjacent said first scroll member, said entire first scroll member other than said discharge passage being covered by said plate member, said discharge passage extending through said plate member and said first end plate;

a first annular seal disposed between said first contact portion of said plate member and said first end plate and surrounding said discharge passage;

a second annular seal disposed between said second contact portion of said plate member and said first end plate and surrounding said first annular seal, thereby defining a chamber between said annular seals;

a passage for placing compressed fluid at a pressure intermediate said suction pressure and said discharge pressure in fluid communication with said chamber to pressure bias said first scroll member toward said second scroll member; and

a vapor injection system in communication with one of said pockets of progressively changing volume, said vapor injection system injecting pressurized fluid into said one pocket.

119. (previously presented) A scroll machine according to Claim 118 wherein said first and second contact portions lie in spaced parallel planes.

120. (previously presented) A scroll machine according to Claim 118 wherein said first and second contact portions lie in the same plane.

121. (previously presented) A scroll machine according to Claim 118 wherein one of said first and second annular seals is disposed within a seal groove.

122. (previously presented) A scroll machine according to Claim 121 wherein said seal groove is disposed within said first scroll member.

123. (previously presented) A scroll machine according to Claim 121 wherein said seal groove is disposed within said plate member.

124. (previously presented) A scroll machine according to Claim 121 wherein said seal groove is generally rectangular in shape.

125. (previously presented) A scroll machine according to Claim 121 wherein said seal groove includes a wall which defines a tapered portion.

126. (previously presented) A scroll machine according to Claim 121 wherein said seal groove includes a wall which defines a double tapered portion.

127. (previously presented) A scroll machine according to Claim 121 wherein said seal groove includes a wall which defines a reverse taper.

128. (previously presented) A scroll machine according to Claim 121 wherein said seal groove includes a wall which defines a reverse double taper.

129. (previously presented) A scroll machine according to Claim 121 wherein said seal groove includes a wall which defines a reverse lip.

130. (previously presented) A scroll machine according to Claim 121 wherein said seal groove includes a wall which defines a first tapered portion, a flat portion and a second tapered portion.

131. (previously presented) A scroll machine according to Claim 121 wherein said seal groove includes a wall which defines a curved portion.

132. (previously presented) A scroll machine according to Claim 118 wherein one of said first and second annular seals is a one-way seal.

133. (previously presented) A scroll machine according to Claim 118 wherein one of said first and second annular seals is an L-shaped seal.

134. (previously presented) A scroll machine according to Claim 118 wherein one of said first and second annular seals defines a notch.

135. (previously presented) A scroll machine according to Claim 118 wherein one of said first and second annular seals is manufactured from Teflon®.

136. (previously presented) A scroll machine according to Claim 118 wherein said vapor injection system operates in a pulse width modulation mode.

137. (currently amended) A scroll machine comprising:

a first scroll member having a first spiral wrap projecting outwardly from a first end plate;

a second scroll member having a second spiral wrap projecting outwardly from a second end plate, said second spiral wrap being interleaved with said first spiral wrap;

a drive member for causing said spiral wraps to orbit with respect to one another whereby said spiral wraps create pockets of progressively changing volume between a suction pressure zone at a suction pressure and a discharge pressure zone at a discharge pressure;

~~a plate member having first and second contact portions disposed adjacent said first scroll member, said entire first scroll member being covered by said plate member;~~

a discharge passage placing one of said pockets in fluid communication with said discharge pressure zone~~, said discharge passage extending through said plate member and said first end plate~~;

a plate member having first and second contact portions disposed adjacent said first scroll member, said entire first scroll member other than said discharge passage being covered by said plate member, said discharge passage extending through said plate member and said first end plate;

a first annular seal disposed between said first contact portion of said plate member and said first end plate and surrounding said discharge passage;

a second annular seal disposed between said second contact portion of said plate member and said first end plate and surrounding said first annular seal, thereby defining a chamber between said annular seals;

a passage for placing compressed fluid at a pressure intermediate said suction pressure and said discharge pressure in fluid communication with said chamber to pressure bias said first scroll member toward said second scroll member; and

a capacity modulation system with said scroll machine, said capacity modulation system operable to vary the capacity of said scroll machine.

138. (previously presented) A scroll machine according to Claim 137 wherein said first and second contact portions lie in spaced parallel planes.

139. (previously presented) A scroll machine according to Claim 137 wherein said first and second contact portions lie in the same plane.

140. (previously presented) A scroll machine according to Claim 137 wherein one of said first and second annular seals is disposed within a seal groove.

141. (previously presented) A scroll machine according to Claim 140 wherein said seal groove is disposed within said first scroll member.

142. (previously presented) A scroll machine according to Claim 140 wherein said seal groove is disposed within said plate member.

143. (previously presented) A scroll machine according to Claim 140 wherein said seal groove is generally rectangular in shape.

144. (previously presented) A scroll machine according to Claim 140 wherein said seal groove includes a wall which defines a tapered portion.

145. (previously presented) A scroll machine according to Claim 140 wherein said seal groove includes a wall which defines a double tapered portion.

146. (previously presented) A scroll machine according to Claim 140 wherein said seal groove includes a wall which defines a reverse taper.

147. (previously presented) A scroll machine according to Claim 140 wherein said seal groove includes a wall which defines a reverse double taper.

148. (previously presented) A scroll machine according to Claim 140 wherein said seal groove includes a wall which defines a reverse lip.

149. (previously presented) A scroll machine according to Claim 140 wherein said seal groove includes a wall which defines a first tapered portion, a flat portion and a second tapered portion.

150. (previously presented) A scroll machine according to Claim 140 wherein said seal groove includes a wall which defines a curved portion.

151. (previously presented) A scroll machine according to Claim 137 wherein one of said first and second annular seals is a one-way seal.

152. (previously presented) A scroll machine according to Claim 137 wherein one of said first and second annular seals is an L-shaped seal.

153. (previously presented) A scroll machine according to Claim 137 wherein one of said first and second annular seals defines a notch.

154. (previously presented) A scroll machine according to Claim 137 wherein one of said first and second annular seals is manufactured from Teflon®.

155. (previously presented) A scroll machine according to Claim 137 wherein said capacity modulation system operates in a pulse width modulation mode.

156. (previously presented) A scroll machine according to Claim 137 wherein said capacity modulation system is in communication with one of said pockets of progressively changing volume.

157. (currently amended) A scroll machine comprising:

a first scroll member having a first spiral wrap projecting outwardly from a first end plate;

a second scroll member having a second spiral wrap projecting outwardly from a second end plate, said second spiral wrap being interleaved with said first spiral wrap, said first scroll member being mounted for axial movement with respect to said second scroll member;

a drive member for causing said spiral wraps to orbit with respect to one another whereby said spiral wraps create pockets of progressively changing volume between a suction pressure zone at a suction pressure and a discharge pressure zone at a discharge pressure;

~~a plate member having first and second contact portions disposed adjacent said first scroll member, said entire first scroll member being covered by said plate member;~~

a discharge passage placing one of said pockets in fluid communication with said discharge pressure zone~~, said discharge passage extending through said plate member and said first end plate~~;

a plate member having first and second contact portions disposed adjacent said first scroll member, said entire first scroll member other than said discharge passage being covered by said plate member, said discharge passage extending through said plate member and said first end plate;

a first annular seal disposed between said first contact portion of said plate member and said first end plate and surrounding said discharge passage;

a second annular seal disposed between said second contact portion of said plate member and said first end plate and surrounding said first annular seal, thereby defining a chamber between said annular seals; and,

a passage for placing compressed fluid at a pressure intermediate said suction pressure and said discharge pressure in fluid communication with said chamber to pressure bias said first scroll member toward said second scroll member.

158. (previously presented) A scroll machine according to Claim 157 wherein said first and second contact portions lie in spaced parallel planes.

159. (previously presented) A scroll machine according to Claim 157 wherein said first and second contact portions lie in the same plane.

160. (previously presented) A scroll machine according to Claim 157 wherein one of said first and second annular seals is disposed within a seal groove.

161. (previously presented) A scroll machine according to Claim 160 wherein said seal groove is disposed within said first scroll member.

162. (previously presented) A scroll machine according to Claim 160 wherein said seal groove is disposed within said plate member.

163. (previously presented) A scroll machine according to Claim 160 wherein said seal groove is generally rectangular in shape.

164. (previously presented) A scroll machine according to Claim 160 wherein said seal groove includes a wall which defines a tapered portion.

165. (previously presented) A scroll machine according to Claim 160 wherein said seal groove includes a wall which defines a double tapered portion.

166. (previously presented) A scroll machine according to Claim 160 wherein said seal groove includes a wall which defines a reverse taper.

167. (previously presented) A scroll machine according to Claim 160 wherein said seal groove includes a wall which defines a reverse double taper.

168. (previously presented) A scroll machine according to Claim 160 wherein said seal groove includes a wall which defines a reverse lip.

169. (previously presented) A scroll machine according to Claim 160 wherein said seal groove includes a wall which defines a first tapered portion, a flat portion and a second tapered portion.

170. (previously presented) A scroll machine according to Claim 160 wherein said seal groove includes a wall which defines a curved portion.

171. (previously presented) A scroll machine according to Claim 157 wherein one of said first and second annular seals is a one-way seal.

172. (previously presented) A scroll machine according to Claim 157 wherein one of said first and second annular seals is an L-shaped seal.

173. (previously presented) A scroll machine according to Claim 157 wherein one of said first and second annular seals defines a notch.

174. (previously presented) A scroll machine according to Claim 157 wherein one of said first and second annular seals is manufactured from Teflon®.

175. (previously presented) A scroll machine according to Claim 157 wherein said scroll machine further comprises a vapor injection system.

176. (previously presented) A scroll machine according to Claim 175 wherein said vapor injection system operates in a pulse width modulation mode.

177. (previously presented) A scroll machine according to Claim 157 wherein said scroll machine further comprises a capacity modulation system.

178. (previously presented) A scroll machine according to Claim 177 wherein said capacity modulation system operates in a pulse width modulation mode.